

ABSTRACT

Introduction: There is no way to isolate one part of the Stomatognathic system and ignore the other parts. If one part gets affected the other parts prone to suffer. Establishing the optimum oral health cannot be achieved unless all the functional components are in harmony with each other. We should establish a harmonious inter-relationship of all parts, without excessive stress, since stress induces deterioration of the weaker components of the system. Group function and Canine guided occlusion have been used in the study.

Keywords: Electromyography, Canine guided occlusion, Group function occlusion, Elevator muscle activity.

Aim: The purpose of this study was to determine which of the two occlusal schemes causes a greater reduction in elevator muscle activity (Masseter, Temporalis) and decrease of muscle tension in lateral movements of mandible using EMG.

Materials and methods: 10 Partially edentulous patients were selected as per predetermined criteria. Each patient was restored with two fixed partial dentures with Canine guided occlusion (Group A) and Group function occlusion (Group B) with an interval of one week. After cementation, surface EMG recordings were made in maximum voluntary clenching and lateral excursion for Group function occlusion and Canine guided occlusion. The results were then statistically analyzed.

Results: Significant reduction of elevator muscle activity was observed in lateral excursion in patients restored with Canine guided occlusion, but it was nearly the same for clenching in both the occlusal patterns.

Conclusion: It was concluded from the above results that, when an entire occlusion is to be restored, reestablishment with canine guided occlusion is preferred when remaining canines are present with good periodontal support. The EMG values obtained in this study can be taken as base line data for future studies.